NAVFAC LIVING MARINE RESOURCES (LMR) Environmental BAA

FY13 Annual LMR BAA – NEXWC
Solicitation Number N39430-13-R-1235
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Description:
This announcement constitutes a Broad Agency Announcement (BAA) for the Naval Facilities Engineering and Expeditionary Warfare Center (NEXWC or NAVFAC EXWC) under FAR 6.102(d)(2) and 35.106. A formal Request for Proposals (RFP), other solicitation, or additional information regarding this announcement will not be issued.

FAR Part 35 restricts the use of BAAs, such as this, to the acquisition of basic and applied research and that portion of advanced technology development not related to the development of a specific system or hardware procurement. Contracts made under BAAs are for scientific study and experimentation directed towards advancing the state of the art and increasing knowledge or understanding. This announcement is not for the acquisition of technical, engineering, or other types of support services.

The Naval Facilities Command, through the Living Marine Resources applied science program (LMR), is soliciting pre-proposals for efforts related to any one of the six (6) themes listed below. If invited, offerors will be asked to submit a full proposal.

Web-based submission process: Submissions should be made via the LMR website, www.lmr.navy.mil, **identifying one, and only one, of the six listed topic areas as the primary focus of the pre-proposal**. Pre-proposals and proposals will only be evaluated under one topic.

Submission Deadline: To be considered for funding in the FY13-14 review cycle, pre-proposals **must be received no later than midnight, Eastern Standard Time on 18 APR, 2013**. If notified of selection and invited to submit a full proposal, these will be due 30 days after notification by the contracting office.

Review and Cost Information: Submitters will receive an automated email message acknowledging successful submission to the LMR website. Following a 4-6 week review and approval process, successful pre-proposal submitters will receive an email inviting submission of a full proposal, also via the LMR website. Unsuccessful pre-proposals will not receive a detailed description of the reasons for pre-proposal rejection, due to the anticipated volume of submissions. Awards to non-government entities (academic institutions, not-for-profit organizations, industry) will be in the form of contracts. A nominal award amount has not been provided because the scope of the needs varies considerably. However awards in excess of $1M are unlikely given the limited budget of the LMR program. The average size of current LMR awards ranges from over $1M to less than $100K over an average award duration of 1-3 years. Submitters are strongly encouraged to use realism of cost for the proposed effort as their metric, as this will be a critical element in the technical review process. Otherwise meritorious pre-proposals and proposals will be rejected if cost does not accurately reflect the proposed scope of work.

The pre-proposals and proposals will be evaluated based on the following criteria, of approximately equal weight.

1. TECHNICAL APPROACH: The scientific/technical merits and objectives in terms of meeting the stated Need, as well as evidence that the science/technology is mature enough for a demonstration program, including any design or development work required prior to demonstration.

2. OFFEROR'S EXPERIENCE: This entails two specific items which should be clearly identified in the pre-proposal and proposal. A) The organization's capabilities related to experience, techniques, or a unique combination of these that are integral factors in achieving the contractor's proposed objectives. This equates to past performance, and will be assessed based on both relevance and confidence and B) NAVFAC also requires the offeror to provide their EMR and DART ratings. Safety is an integral and important aspect in all NAVFAC

work. If the offeror does not have an EMR/DART rating, they should state this and provide the narrative rationale. See NFAS 15.304.

3. PRINCIPAL INVESTIGATOR'S AND KEY MEMBER'S RELATED EXPERIENCE: The qualifications, capabilities, and experience of the principal investigator, team leader, and/or key personnel who are critical in achieving the objectives of the abstract. Principle Investigators and key personnel should be identified in the pre-proposal as such.

4. COST/PRICE: The cost relative to the proposed scientific/technical approach. For the pre-proposal phase this information may be limited to a total cost estimate by federal fiscal year (October 1 – September 30). If invited to submit a full proposal, additional guidance on cost/price information will be provided. This is not prescriptive, and can be submitted in the contractor's format. However, the same information will be required.

5. NAVY BENEFITS AND IMPACT:. Expected benefits in terms of environmental impact and/or cost, projections of the number of Navy sites or facilities where the proposed technology could be deployed, and life cycle cost advantages over current approaches.

6. IMPLEMENTATION REQUIREMENTS: Likely Navy user targeted by this effort and requirements for implementing the proposed products of this effort by the Navy

The proposed technology or methodology shall address one of the following six topic areas.

- Data and Tools for the Assessment and Mitigation of Effects from Construction Noise (LMR N-0001-13). Pre-proposals should focus on 1) better methods to assess the potential effects of underwater sound in inland waterways **and/or** 2) cost-effective methods to mitigate the impacts of underwater sound during in-water construction, maintenance, operation and training operations. The goal of successful pre-proposals should be to support cost-effective planning and execution of projects while minimizing environmental risk. Additional details about pre-proposal and proposal evaluation for this topic are provided on the LMR website, www.lmr.navy.mil.
    - Anticipated Duration of Effort. The nominal duration of awards under this topic is expected to be 1-2 years, culminating in a commercially available or open-access product with documentation and user support.

- Passive Acoustic Monitoring (PAM) Technology Demonstrations (LMR N-0006-13). This topic is based on the Navy need for persistent automated monitoring of sites of interest such as the Navy training and evaluation ranges covered by the current Navy Phase II NEPA process. Passive acoustic monitoring (PAM) is a proven means of detecting, classifying, and localizing vocally active marine mammals, as well as a number of fish species. Sensors can be moored, drifting, vessel towed or mounted on unmanned mobile platforms, including gliders.
  Top priority will be given to pre-proposals for a comprehensive review of existing systems and their performance metrics. Second-highest priority will be given to comparative field performance assessments of two or more existing, commercially available systems operated simultaneously in the same location, preferably a site of direct Navy interest. Proposals for the development of new systems will be given lowest priority. Pre-proposals do not need to provide the complete, detailed information listed in the full statement of need on the LRM website, but should be prepared to do so if the pre-proposal is accepted for development into a full proposal.
    - Anticipated Duration of Effort. Due to the maturity of this technology, an assessment period of two years is considered sufficient before transition to application by fleets and systems commands with living marine resource monitoring and mitigation requirements.

- Behavioral Responses to Navy Sound Sources (LMR N-0011-13). Potential behavioral effects on marine life, in particular marine mammals, make up the largest and most poorly defined category of environmental

risk to marine life from Navy sound-producing activities. Much of the available historical data comes from non-Navy sound sources, for species and locations of relatively low Navy concern. Data are needed to strengthen the quantitative, statistical foundations of risk thresholds developed jointly by Navy and the regulatory agencies. Priority species, locations, sound sources and data products are identified in the expanded topic description in the LMR website (www.lmr.navy.mil). Three basic forms of data collection have been implemented in the past, and are listed in decreasing order of impact. Higher impact is typically associated with greater cost, and submissions under this need should address that trade-off:

1. Playbacks, Controlled Exposure Experiments (CEE), or Behavioral Response Studies (BRS). These studies include a controlled sound source operated in the open ocean, preferably at sites of high Navy interest, such as Navy ranges. Details about the source operating characteristics are important, and preference will be given to actual operational sources such as mid-frequency tactical mid-range sonars, pile driving equipment, explosives, etc. CEE/BRS may include tagged animals, preferable animals equipped with an acoustic recording tag (such as the Woods Hole Oceanographic Institution D-tag, Greeneridge Sciences' Acousonde, or similar device), but tagging is not necessary. Pre-proposals and proposals involving tagging will also need to address permitting and animal care and use (ACU) requirements.
2. Opportunistic Observations - this class of behavioral response study may take advantage of on-site Navy assets, including classified assets, such as the Navy Integrated Undersea Surveillance System (IUSS), instrumented ranges like the AUTEC, PMRF or SOAR ranges, or proposer-provided monitoring assets such as animal tags, towed arrays, sonabuoys, ROVs, etc. In opportunistic studies the researcher typically monitors a source not under the team's control, preferably a Navy source being operated in realistic training and exercise conditions. Preference will be given to species of high concern at sites of high Navy interest (see full need description on the LMR website).
3. Laboratory studies - animals under human care may be employed in designed sound exposure studies in open or confined waters, allowing for development of larger sample sizes under carefully controlled and monitored conditions, but carrying greater uncertainty about the extension of observed responses to free-ranging animals in the wild.

- Anticipated Duration of Effort. A minimum of 1-2 years of data collection, followed by a 6 month to one year data analysis phase is anticipated, culminating in reduced data products indicating amplitude-scaled likelihood of response, metrics of uncertainty and context effects (such as behavioral state, proximity to shore, source location and movement).

- Hearing and Auditory System Information for Hearing-Based Risk Criteria (N-0012-13). The Navy and NMFS rely heavily on threshold of audibility data and hearing-based risk criteria. Current gaps in understanding of these metrics have produced risk threshold criteria that are likely to be overly conservative. For example, no recovery function is applied to Temporary Threshold Shift (TTS effects), even though recovery usually occurs quickly for intermittent sources like mid-frequency sonars. Few data, even for basic audiometry, are available to support risk criteria for ESA listed birds, fishes, or invertebrates. Many species are rare or difficult to keep in captivity, such as beaked whales and baleen whales, in which case modeling from anatomy or a capability to quickly test stranded animals (e.g. AEP) might be of potentially greater value than would be the case if these methodologies were applied to species already under human care such as bottlenose dolphins or sea lions. Preference will be given to proposals addressing the priority species and data needs detailed in the expanded topic description on the LMR website (www.lmr.navy.mil). (For work addressing methodological and technological improvements to AEP and other alternative data collection techniques see the topic entitled "Capability Development for Hearing Measurements (N-0029-13").
    - Anticipated Duration of Effort. A minimum of one to two years is anticipated for data collection, validation and verification, followed by 6-12 months of data analysis and synthesis into the existing body of knowledge on the subject through peer-reviewed publication in professional journals.

- Demonstration and Evaluation of Platform-Independent Improvements to Automated Signal Processing of Passive Acoustic Monitoring (PAM) Data (LMR N0020-13). As PAM sensors continue to deliver more data from both baseline surveys and mitigation monitoring, the time to process the data remains inconsistent and slow and the cost remains high, making it difficult to evaluate competing PAM systems and their data

processing systems. A process is needed by which new and emerging signal processing systems are evaluated against common, shared benchmarks. This statement of need encourages proposals to develop, test, and evaluate existing or new PAM signal processing systems designed for users with relatively little or no subject matter expertise. Proposed signal processing systems may be integrated with a specific hardware/software PAM system for data collection, but preference will be given to hardware-independent processing systems. Hardware-independent systems should clearly specify file formats, frequency bandwidth limitations or special signal conditioning requirements for data sets submitted to the processor. Additional details about pre-proposal and proposal evaluation under this topic are provided on the LMR website, www.lmr.navy.mil.

  - Anticipated Duration of Effort. Evaluation of existing commercial or freeware products might only require 1 year of development prior to evaluation, but the nominal duration of awards under this topic is expected to be 2-3 years, culminating in a commercially available or open-access software product with documentation and user support.

- Capability Development for Hearing Data Collection (LMR N0029-13). This statement of need focuses on technology and methodology developments to expand the sample size and range of species that can be tested, along with reducing cost and time to obtain data. Existing alternatives to behavioral testing of trained animals include evoked potential audiometry and modeling from anatomy. Other solutions may exist or deserve further exploration. Additional guidance to pre-proposal submitters can be found on the LMR website (www.lmr.navy.mil).
  - Anticipated Duration of Effort. Projects involving new technology development and evaluation may require 2-3 years of effort before being ready for widespread application.

NOTE: An eligible pre-proposal or proposal does not guarantee a contract. Multiple contracts may result.

CRITICAL NOTE: A CONTRACTOR IS REQUIRED TO REGISTER WITH THE SYSTEM FOR AWARD MANAGEMENT (SAM). NO CONTRACT AWARD WILL BE MADE TO ANY CONTRACTOR THAT IS NOT REGISTERED. SAM.GOV MAY BE REACHED AT HTTPS://WWW.SAM.GOV. The registration process may take up to three weeks.

NOTES:
1. The preceding data should be sufficient for completing the pre-proposal form.

2. There are no solicitation documents applying to this LMR BAA. Request for a solicitation package will not be acknowledged. Those interested in participating in the LMR BAA program must follow the instructions to submit an abstract.

3. There is no commitment by the Navy either to make any contract awards or to be responsible for any money expended by the contractor before a contract award.

4. As no funding for contracts has been reserved in advance, NEXWC will be sharing qualified abstracts with other Federal Government activities to seek demonstration sites and/or funding. Some Federal Government activities may employ civilian contractors to determine the applicability of an offered technology to specific projects. Technical and cost pre-proposals and proposals submitted under this BAA will be protected from unauthorized disclosure in accordance with FAR 3.104-4 and 15.207. The cognizant Program Officer and other Government scientific experts will perform the evaluation of technical proposals. Restrictive notices notwithstanding, one or more support contractors may be utilized as subject-matter-expert technical consultants in accordance with FAR 37.204. However, pre-proposal and proposal selection and award decisions are solely the responsibility of Government personnel. Each support contractor's employee having access to technical and cost pre-proposals and proposals submitted in response to this BAA will be required to sign a non-disclosure statement prior to receipt of any pre-proposal or proposal submissions. An offeror may require the non-government personnel to execute a supplemental non-disclosure agreement by including a copy of the NDA with their proposal. However, note that a failure to come to an agreement may impact the ability to make an award. Please review FAR 37.204 and NFAS 15.303(d)(4).

5. Eligibility notification will be sent to all contractors who have submitted an abstract, after the Technical Evaluation Board (TEB) has reviewed all pre-proposals submitted by the solicitation cut-off date.

6. For questions regarding this BAA, contact NAVFAC EXWC at (805) 982-4853 or via this e-mail address: exwc_lmr_program@navy.mil. Correspondents are advised not to include Personally Identifiable Information (PII), business proprietary, or competition-sensitive information via email. The contractor should expect to receive notification of receipt of the abstract by the Government within one week of submission. If the contractor does not receive a notification of abstract receipt, the contractor should call or e-mail NEXWC by using the phone number or e-mail address provided in this section.

7. Historically Black Colleges/Universities and Minority Institutions (HBCU/MI) will be recognized according to DFARS 226.3. All responsible sources from academia and industry may submit proposals. No portion of this BAA will be set aside for HBCU and MI participation, due to the impracticality of reserving discrete or severable items of this research for exclusive competition among the entities. Federally Funded Research and Development Centers (FFRDCs) including Department of Energy National Laboratories, are not eligible to receive awards under this BAA. However, teaming arrangements between FFRDCs and eligible principal bidders are allowed so long as they are permitted under the sponsoring agreement between the Government and the specific FFRDC. Naval laboratories and Warfare Centers as well as other DOD and civilian agency laboratories are not eligible to receive awards under this BAA and should not directly submit white papers or full proposals in response to this BAA. If any such organization is interested in one or more of these program areas, they should contact the NEXWC program office to discuss its interest. As with the FFRDCs, these organizations may team with other responsible sources from industry and academia that are submitting proposals under the BAA. University Affiliated Research Centers (UARC) are eligible to submit proposals under this BAA unless precluded from doing so by their DOD UARC contract.

8. Do not call the Contracting Office for verification. The pre-proposal is not received by the Contracting Office.